



Economic Impact Analysis Virginia Department of Planning and Budget

9 VAC 5-50; 60; 80 –Regulations for the Control and Abatement of Air Pollution State Air Pollution Control Board February 1, 2005

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.G of the Administrative Process Act and Executive Order Number 21 (02). Section 2.2-4007.G requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. The analysis presented below represents DPB's best estimate of these economic impacts.

Summary of the Proposed Regulation

In determining the applicability of minor new source review standards of the State Air Pollution Control Board (the board), existing regulations use a source-wide, "net emissions increase" approach. The proposed regulations convert from using this approach to an approach that looks at changes in the uncontrolled emission rate resulting from an individual physical or operational change.

Estimated Economic Impact

These regulations contain applicability rules and standards for Minor New Source Review (MNSR). MNSR is the review of new and modified sources of certain air emissions from sources that do not qualify for review under Prevention of Significant Deterioration (PSD) and Non-attainment New Source Review (NSR). MNSR review looks at the emissions changes resulting from new sources or modifications to existing sources. There have been two approaches used in Virginia for analyzing permit applicability under MNSR. The individual unit uncontrolled emissions approach looks at the changes to individual emissions units and evaluates

the impact of changes to individual emissions units on emissions in the absence of any control technology. The source-wide net emissions increase approach looks at all changes in controlled emissions rates resulting from changes to a cluster of sources. The main difference between the two approaches is that one looks at each physical or operational change to the source individually to determine applicability and the other looks at the net increase in controlled emissions based on all the source-wide emissions changes directly resulting from the physical or operational change. Prior to 2002, MNSR review was conducted based on the individual unit uncontrolled emissions approach. In 2002, the State Air Pollution Board converted to the source-wide net emissions increase approach. The board now proposes to convert back to the old approach that was utilized prior to 2002.

The differences between the two approaches are significant. Looking at emissions changes from individual sources is much simpler and more straightforward to implement. Generally, no more than a simple analysis of the uncontrolled emissions changes is required in order to determine whether or not a permit is required. Writing permit conditions and compliance provisions for the individual changes are also a lot easier. Thus, the administrative costs of preparing and reviewing an application are quite low. In addition, many more of the less significant individual changes are exempt from permitting requirements, reducing the compliance cost on these sources. However, larger firms have less flexibility for making more significant changes under the individual unit uncontrolled emissions approach.

Looking at the source-wide net emissions increase that results from a number of changes at a source, on the other hand, provides more flexibility to larger firms in terms of avoiding permitting requirements and making those changes more quickly. Under this approach, a firm can offset emission increases by making concurrent changes that reduce the net emissions increase (such as removing related equipment), thereby avoiding MNSR. However, the administrative costs of this approach are higher compared to the individual unit uncontrolled emissions approach because it requires complex emissions calculations, and a difficult (and often contested) analysis of the relationship of all the concurrent changes. The Department of Environmental Quality (the department) has to allocate more administrative resources to monitor and implement this complex approach.

In 2002, the board converted to the source-wide net emissions increase approach, anticipating that there would be benefits to the regulated community and to the department. The increased flexibility to “net out” of permit applicability was expected to result in more changes exempt from permitting requirements (resulting in fewer permit applications), and fewer delays for the firms making those exempt changes. This and concurrent changes to the control technology requirements were also expected to result in decreased permit processing times. Firms would have the flexibility to make more of their operational changes more quickly without burdensome permitting requirements. The Department would see fewer applications and make fewer control technology determinations, which in turn would offset the administrative costs of the more complex application review process.

However, after more than 2.5 years of experience with the new approach, the board now proposes to revert to the uncontrolled emissions approach. According to the department, flaws in the basic concept of the new rule have made implementation problematic and the expected benefits have not been realized. The department’s review process under the new rule has become more complex, without the expected increase in the number of exempt sources. The department’s ability to make timely determinations of permit and BACT applicability has been greatly reduced and consistency has suffered.

Most sources are facing increased difficulties and costs in preparing their application packages. The main reason for the increased problems is the complexity of calculating changes in total emissions. Larger firms are not able to predict their applicability without experienced assistance from consultants, resulting in more applications overall for the department to review. Many sources are small firms that cannot afford outside help and who turn to the department for assistance. Thus, the new approach has placed a significant administrative burden on the department and affected entities and has significantly slowed the department’s permit review process. For example, average processing time increased from 35 days to 72 days for the permits that do not require a public hearing. For permits that require a public hearing, the average processing time increased from 73 days to 90 days.

Based on the experience of the department with the net emissions approach in the last 2.5 years, the proposed change to revert to the uncontrolled emissions approach is expected to reduce the complexity of the regulation and consequently the administrative costs for the

department and for a majority of sources. A significant reduction in workload of the permit writers and field inspectors who make compliance determinations is expected. Also, sources are likely to find it easier and cheaper to prepare a MNSR application package because they are familiar with the simpler approach. The cost to prepare a permit application varies considerably from \$80 for a small source to \$80,000 for a large source. Similarly, the costs of an amendment to a permit vary from \$160 to \$4,200 depending on the size of the source. While firms are likely to realize some cost savings, they will also lose some operational flexibility and potential savings from the operational flexibility. According to the department, most firms desire to revert to the individual emissions approach. This may be taken as an indication that the expected reduction in administrative costs outweighs the expected costs of losing some operational flexibility for most firms.

The effect of proposed changes on the statewide emissions is not expected to be significant. Under the proposed changes, additional sources will be subject to MNSR, but also some of the sources currently subject to MNSR will no longer be regulated under these rules. Overall, the net change in statewide emissions is not expected to be significant.

Even though this proposal may benefit most firms, some firms, particularly large firms, may be negatively affected. It is likely that the administrative costs associated with MNSR are less significant for larger firms than they are for smaller firms. Also, some of the large firms subject to MNSR are also subject to major new source review for different facilities. Because the net emissions approach is used under major new source review, they are already familiar with this somewhat complex emissions analysis and they already possess resources to conduct the required emissions modeling. Thus, the added administrative costs of complying with the net emissions approach for large firms are probably less significant. At the same time, the value of operational flexibility provided by the net emissions approach is probably higher for large firms. In addition to the large sources, there may be other firms that stand to lose from reverting to the uncontrolled emissions approach for firm-specific reasons.

While the uncontrolled emissions approach appears to be best for most of the facilities, the net emissions approach seems to be the preferred method for some other firms, especially large firms. Thus, using a uniform approach will have the unintended consequence of hurting either small facilities or large facilities. Perhaps the best way to minimize compliance costs is to

establish a dual system, where firms are afforded the opportunity to choose the method of review when they are filing their application. A dual approach would ensure that small firms minimize their administrative costs and at the same time large firms maximize their operational flexibility and savings from that flexibility. A dual system would also help the department alleviate the backlog of application reviews, as most firms are expected to choose the simple uncontrolled emissions review method. Although such a dual system would somewhat complicate the review process, the department is already familiar with both systems and should not have significant difficulty in accommodating a small number of requests it may receive for review under the net emissions method.

Businesses and Entities Affected

The proposed regulations will affect businesses and entities that wish to construct or modify their stationary sources in a way that is subject to MNSR. Approximately 335 permits were issued in 2001, 350 in 2002, 250 in 2003, and 170 in the first half of 2004.

Localities Particularly Affected

The proposed regulations apply throughout the Commonwealth.

Projected Impact on Employment

The proposed changes are expected to reduce administrative compliance costs associated with obtaining a permit from the department. However, the reduction in compliance costs does not, by itself infer a change in employment, since it is not known how the released funds will be used. If consulting businesses lose a significant number of customers as a result of the proposed changes, their demand for professional labor could decrease.

Effects on the Use and Value of Private Property

Any reduction in compliance costs for sources of air emissions can be expected to increase profits to firms owning the sources. The increase in profits will not, in general, be as large as the reduction in the firm's compliance costs. In competitive industries, much of the reduced costs will show up as reduced consumer prices. Insofar as profits increase, the value of the firms owning the sources will also increase. In the unlikely event that the changes lead to increased air emissions, then properties close to those increased emissions may suffer a loss in market value.